DOCUMENT RESUME

ED 465 398 JC 020 426

TITLE	Transfer Capacity and Readiness in the California Community Colleges: A Progress Report to the Legislature.
INSTITUTION	California Community Colleges, Sacramento. Office of the Chancellor.
PUB DATE	2002-03-01
NOTE	56p.; Prepared by the Student Services and Special Programs Division and the Technology, Research, and Information Systems Division. Published by the Enrollment Management Unit. Appendixes not included in ERIC copy.
AVAILABLE FROM	For full text: Lcap_%20readi_ccc.pdf.
PUB TYPE	Reports - Descriptive (141)
EDRS PRICE	MF01/PC03 Plus Postage.
DESCRIPTORS	*Articulation (Education); *College Transfer Students; *Community Colleges; Institutional Cooperation; Research Methodology; Transfer Policy; *Transfer Rates (College); Two Year Colleges
IDENTIFIERS	*California Community Colleges

ABSTRACT

This report provides descriptive data on the transfer function at the 108 individual California community colleges, introduces a new methodology for calculating transfer rates, provides raw and adjusted rates for all colleges, and discusses the assistance provided to enhance effective transfer. Report highlights include: (1) 95% of the colleges self-assessed their transfer function as no less than satisfactory, but the majority also reported the need for additional resources to increase transfer capacity; (2) the chancellor's office developed a new methodology to determine transfer rate that analyzes the behavior of 6-year cohorts of students who demonstrate a desire to transfer; (3) the new transfer rate methodology yielded a systemwide transfer rate of 32% for the 1993-1999 cohort, 24% for the 1994-2000 cohort, and 34% for the 1995-2001 cohort; (4) in the 2000-2001 academic year, there were 4,740 lower-division and 43,160 upper-division transfers to the California State University system; and (5) the most serious current threat to seamless transfer is the fiscal crisis facing the ASSIST project, the official repository of articulation agreements for the public institutions and the linchpin of transfer and articulation information for students. This document discusses systemwide summary data on the transfer function and articulation, transfer rate calculations, transfer number counts, capacity at receiving institutions, persistently low-transfer institutions, and technical assistance. Appended are: (1) 2002-2002 Budget Act Language; (2) Questions and Responses from the Transfer Center Annual Report and the Articulation Addendum, 2001; (3) Colleges with the Greatest Barriers to Transfer; and (4) Quantitative Analysis of Persistently Low-Transfer Colleges, 1993-2001. (Contains 37 tables.) (EMH)

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ED 465 398

Transfer Capacity and Readiness in the California Community Colleges

A Progress Report to the Legislature

March 1, 2002

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Published by the
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Executive Summary

This report provides descriptive data on the transfer function at the 108 individual California Community Colleges, introduces a new methodology for calculating transfer rates, provides raw and adjusted rates for all colleges, and discusses the assistance provided to enhance effective transfer.

- All colleges have a transfer center; 95% of the colleges self-assess their transfer function as no less than satisfactory (and in most cases, much better), but the vast majority also reported the need for additional resources to increase their transfer capacity.

- Title 5 specifies fifteen standards for the transfer function. There are only three areas where compliance appears to be difficult for about 25% of the colleges. Technical assistance will be provided in those areas.

- While all colleges have transfer centers and a transfer center director, there are wide variations in staffing, funding and institutional commitment throughout the system.

- Anecdotal data suggest there may be obstacles to transfer related to the sufficiency of transfer-related course offerings in some colleges but additional research is necessary to analyze the problem and identify solutions.

- Transfer center personnel report a wide array of barriers to successful transfer. Not surprisingly, they report the most significant problem to be the academic preparation of those students desiring to transfer. Their subjective comments are amply supported by other Chancellor's Office research.

- Successful articulation of coursework between the community colleges and the four-year institutions is at the heart of a seamless transfer experience for students. All colleges and universities in the three public segments (and most independent colleges as well) participate in the articulation function but there are wide variations in staffing, funding and institutional commitment for articulation throughout all systems.

- The most serious current threat to seamless transfer is the fiscal crisis facing the ASSIST project. This highly valuable project is the official repository of articulation agreements for the public institutions and is the linchpin of transfer and articulation information for students.

- The rate at which a particular community college transfers students to four-year institutions is widely accepted as one of the comparative measures of transfer success.

- The Chancellor's Office has developed a new methodology to determine transfer rate that analyzes the behavior of six-year cohorts of students who demonstrate a desire to transfer.

The rate includes independent, private and out-of-state institutions as well as UC and CSU, except where limited by local college participation in data-generating activities.

- The new transfer rate methodology yields a systemwide transfer rate of 32.0% for the 1993-1999 cohort, 33.7% for the 1994-2000 cohort and 34.2% for the 1995-2001 cohort.

- While these new "raw" or unadjusted transfer rates are more descriptive of actual institutional performance (because the cohort is limited to appropriate students and takes into account transfer to all types of four-year institutions), the unadjusted rates still produce an inequitable comparison between colleges because several factors beyond the institutions' control (such as distance to a CSU campus) are not considered.

- A second set of rates, adjusted for variables beyond the institutions' control, has been calculated for all colleges. These adjusted rates provide a more refined analysis of transfer performance than any we have yet produced, but caution is urged. No such analysis can account for the myriad conditions and variables that affect the complex transfer function.

- The quality of the high school academic preparation of students desiring to transfer is, by far, the most significant variable beyond the control of the individual college.

- The report also provides simple transfer counts, in addition to rates. The counting capability has been expanded to include independent, private, and out-of-state colleges. The structure of the national data base creates uneven annual reporting, which obviates the usefulness of annual comparisons (until such time as participation in the data base is more stable), however useful information can still be derived. These counts, for example, illustrate that a greater portion of Black students transfer to independent, private, and out-of-state colleges than any other ethnic group.

- The success of the transfer function for the community colleges is highly dependent upon the capacity of the receiving institutions. Factors outside the control of the community colleges (such as the 115 percent increase in impacted majors in CSU between 1998-99 and 2002-03) affect both transfer rates and transfer counts. Impaction may also disadvantage some students who are less competitive or unable to relocate.

- Although the total count of transfers to UC and CSU has fluctuated and grown by only a moderate amount in the last ten years, there has been a significant shift in the transfer pattern, particularly for CSU. In 1990-91, there were 14,757 lower-division and 31,921 upper-division transfers to CSU. In 2000-01, there were 4,740 lower and 43,160 upper. Although the overall numbers have not grown dramatically, the effectiveness of the community colleges as providers of the first *two* years of education has improved dramatically. This is a fiscal benefit to the state and points to the success of transfer efforts.

- The Legislature has instructed the Chancellor's Office to provide assistance to colleges with persistently low rates of transfer. As mentioned previously, an adjusted rate has been

calculated for each college. Where that rate is lower than might be expected (by an amount with statistical significance) the college is defined as a "low-transfer college." Where that condition persists for three years, the college is defined as "persistently low. Only one community college met that standard but the Chancellor's Office is not ready to label that college as a "persistently low-transfer college" because of data matching problems.

- Technical assistance will, of course, continued to be provided to colleges by the Chancellor's Office. The 2002-2003 work plan of the Chancellor's Office will focus on assistance for all colleges with comparatively low adjusted rates, improvement in compliance with Title 5 where indicated and continued development of strategies to overcome student barriers to successful transfer.

Introduction

The *Budget Act of 2001* requires the Chancellor to review the capacity and readiness of each community college district to meet the needs of students desiring to transfer and to provide technical assistance to community college districts as necessary to assure that each community college district identifies options to use its local resources most effectively. The *Budget Act* also requires that on or before March 1, 2002, the chancellor shall provide a progress report to the Governor and the Legislature on this review and technical assistance. (See Appendix 1 for complete text.)

Data Used to Review Capacity and Readiness

There are several sources of data for this report:

- During the summer of 2001, all 108 community colleges completed a "transfer center annual report" as required by Title 5 to describe the status of the college's effort to implement its transfer function.
- The same report contained an "articulation addendum" to solicit information related to articulation efforts and issues.
- National Student Clearinghouse data are used to calculate transfer rates for the community colleges, employing a recently adopted methodology.
- The community college Chancellor's Office Management Information System data are used to provide information on individual student characteristics and to match academic records.

Capacity and Readiness

There are no widely accepted, agreed upon definitions of capacity or readiness for transfer in the community college system. However, given the importance of the transfer mission and recognizing that many students have the desire and/or potential to transfer, Title 5 of the *Education Code* requires all districts to have a transfer center and defines minimum program standards. All 108 colleges (72 districts) have some form of transfer center. Beyond the general standards stated in Title 5, there are no mandated requirements for specific levels of funding or staffing for the transfer function. Transfer is not a categorically funded program.

Budget Act language specifies that the Chancellor's Office shall review the "capacity and readiness of each community college district to meet the needs of students desiring to transfer." Given that all 108 community colleges have a transfer center and in the absence of common

definitions of readiness or capacity, any review must by necessity be somewhat subjective. It would be misleading to rely solely on quantitative data (such as the raw number of transfers, number of staff or funds expended) without consideration of other qualitative and exogenous variables that may affect the overall transfer function.

This report provides data on the transfer centers and other elements that may have an influence on the transfer function. It also offers information on new methodologies for calculating transfer rates and introduces a newly adopted Chancellor's Office rate determination methodology. When appropriate, comments have been added to clarify the data elements, provide a context or elaborate on issues as related to readiness and capacity, but no certain conclusions are drawn.

Systemwide Summary Data on the Transfer Function

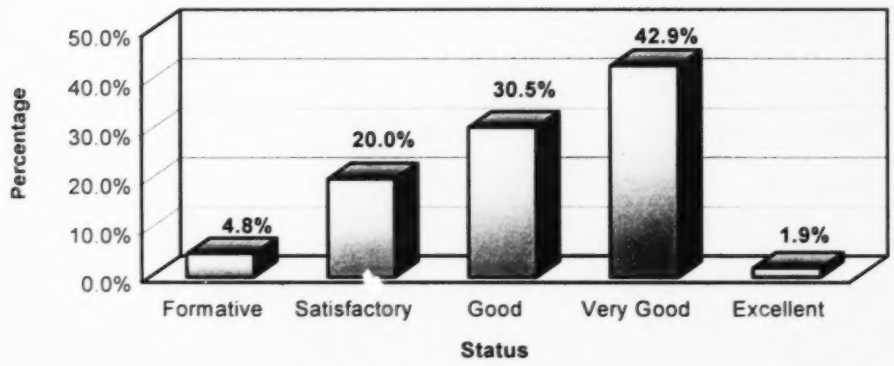
Below are summary tables and data reflecting various student service and academic aspects of the transfer function in the community colleges. All data in this section are taken from the Transfer Center annual reports and pertain to the 2000-2001 academic year. (See Appendix 2 for complete data to support tables.)

There are four sections: General Information, Transfer Center Characteristics, Academic Offerings and Scheduling, and Challenges in Transfer. (Following these sections, the results from the *Articulation Addendum* are provided.)

General Information

In the annual report, transfer center directors were asked to give their own subjective judgment of the current overall status of their transfer center. Of the 105 colleges answering this question, more than three-fourths reported the current status as good to excellent (Table 1). This self-assessment reflects that a significant majority of the community colleges are proud of their performance and believe they are doing well in consideration of all factors affecting transfer.

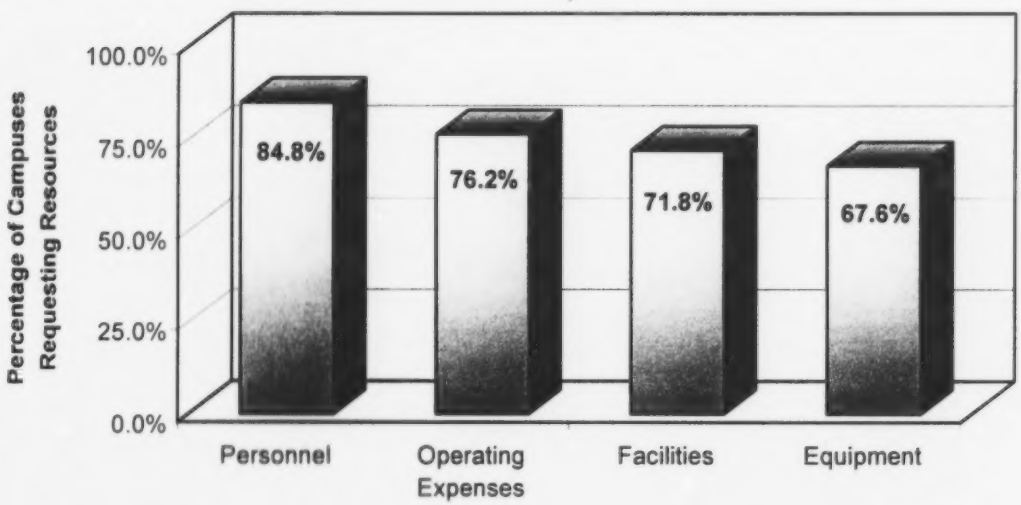
Table 1
Self-Reported Transfer Center Status



Formative: Fundamental infrastructure and resources needed
Satisfactory: However, significant resources and improvements needed
Good: But needs specific resources
Very Good: But would benefit from additional resources
Excellent: Fully funded, staffed, and supported

Note that these responses indicate that 98% believe they would benefit from some level of additional resources. This opinion is further illustrated in response to another question in the report, "Do you feel that the Transfer Center is at full capacity for achieving transfer goals?" Of 107 colleges responding, 100 (93.5%) responded "No." All colleges reported at least minor needs, while many reported significant resource requirements. Colleges were asked about the specific resources required to fully achieve their transfer goals. Of the resources identified, the need for additional personnel emerged as greatest with 85% of the colleges reporting deficits in this area. Personnel needs include increasing transfer center directors to full time and/or adding counselors and/or clerical support. Seventy-six percent reported a need for operating expenses including supplies, materials, software, travel, postage, and printing. Seventy-two percent indicate a need for additional facilities and 68% express a need for equipment (Table 2). These elements indicate that although the colleges believe they are performing well at the present time, they also believe they have the potential to increase their capacity if provided with additional resources.

Table 2
Additional Resources Needed to Achieve Transfer Goals



In the annual report, colleges were asked to indicate the status of their progress toward meeting the minimum standards of the transfer center as set forth in Title 5 regulations. The following checklist summarizes the colleges' responses. As the summary data show, the majority of colleges have achieved or partially achieved compliance with all requirements. Where colleges responded "partially achieved" or "not achieved," they were asked to provide action steps for achieving full compliance. A recommendation will be made to those colleges to incorporate those action steps into their 2002-2003 transfer plan to help insure that full compliance is achieved. Progress is monitored by the Chancellor's Office as part of the annual reporting

process. Based on individual responses, Chancellor's Office staff has identified a few colleges that may benefit from more immediate technical assistance. In those instances, staff are following up on a case-by-case basis.

Title 5
Minimum Program Standards Compliance Checklist Summary

The following reflects the response of each of the 108 colleges regarding their current efforts to implement the minimum program standards as specified in Title 5.

	Achieved	Partially Achieved	Not Achieved	Missing responses
Board Recognition, Priorities, Direction, and Adoption				
(a) Transfer recognized by Board of Trustees as one of the district's primary missions with priority emphasis placed on the preparation and transfer of underrepresented students.	90	14	2	2
(b) Development of Transfer Plan and adoption of such plan by the Board of Trustees.	91	10	4	3
(1) Required services as provided by colleges				
(A) Identify, contact and provide transfer support services to targeted student populations with a priority emphasis on underrepresented students.	39	63	4	2
(B) Ensure provision of academic planning for transfer, the development and use of TAA's, course-to-course articulation and major articulation agreements.	63	44	0	1
(C) Ensure that students receive accurate and up-to-date academic and transfer information through coordinated transfer counseling services.	75	31	0	2
(D) Monitor the progress of transfer students to the point of transfer.	21	58	26	3
(E) Support the progress of transfer students through referral as necessary, to instructional and student support services.	81	25	0	2
(F) Assist students in the transition process, including timely completion and submittal of necessary forms and applications.	87	19	1	1
(G) In cooperation with baccalaureate institution personnel, develop and implement a schedule of services for transfer students to be provided by	67	35	5	1

	Achieved	Partially Achieved	Not Achieved	Missing responses
baccalaureate institution staff.				
(1) Required services as provided by colleges (continued)				
(H) Provide a resource library of college catalogs, transfer guides, articulation information and agreements, application to baccalaureate institutions, and related transfer information.	96	11	0	1
(2) Facilities				
Space and facilities adequate to support the transfer center and its activities. This location should be readily identifiable and accessible to students, faculty, and staff.	54	42	11	1
(3) Staffing				
Clerical support shall be provided for the transfer center and college staff shall be assigned to coordinate the activities of the transfer center, to coordinate underrepresented student transfer efforts and to serve as a liaison to articulation, student services, instructional programs and personnel from baccalaureate institutions.	59	40	8	1
(4) Advisory Committee				
An advisory committee shall be designated to plan the development, implementation and ongoing operations of the transfer center(s). Membership shall be representative of campus departments and services. Baccalaureate institution personnel shall be included as available.	48	35	23	2
(5) Evaluation and Reporting				
The Transfer Plan shall include a plan of institutional research for ongoing internal evaluation of the effectiveness of transfer efforts and achievement of Transfer Center Plan.	53	31	22	2
An annual report shall be submitted to California Community Colleges Chancellor's Office describing the status of the district's efforts to implement its transfer centers, achievement of Transfer Plan targets and goals, and expenditures supporting transfer center operations.	108	0	0	0

Three notable areas of noncompliance emerge from the summary data related to the Title 5 requirements. These items are identified as future priorities for statewide technical assistance. It is apparent that many colleges are challenged in the areas of monitoring student progress, the establishment of advisory committees and the development of an institutional research plan for internal evaluation. As noted in other items of their report, full compliance in these areas is often compromised by factors such as limited personnel (e.g., counselors, transfer center staff), limited time (conflicting priorities), lack of technology (e.g., electronic student tracking, degree audit systems) and limited fiscal resources. The specter of loss of additional funding for matriculation (as proposed in the *January 2002 Governor's Budget*) worries transfer personnel and Chancellor's Office staff, as a loss of matriculation funding will certainly exacerbate the challenge of supporting student progress.

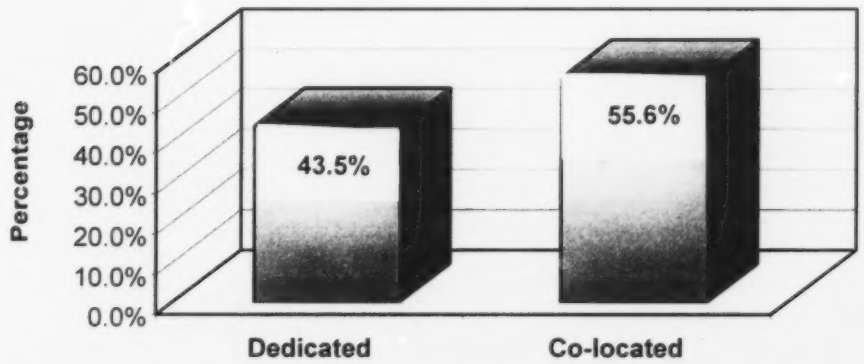
There are a sufficient number of colleges that have succeeded in all areas of Title 5 to enable staff to share best practices and/or develop specific recommendations for statewide dissemination.

Transfer Center Characteristics

This section summarizes characteristics of the transfer centers and various aspects of transfer center operation. Summaries include type of center, hours of operation, staffing and expenditures.

All 108 community colleges report having a transfer center to serve students desiring to transfer. Forty-eight (48) report having "dedicated" or stand-alone centers, while sixty (60) report being "co-located" with other services such as counseling or career centers (Table 3). Although there is a range in size for both types of centers the average square footage remains relatively the same at about 600 square feet. Chancellor's Office staff have noted that based on previous studies, there appears to be a shift toward more co-location. Since facilities were identified as the third greatest resource need, one could assume this trend to be the result of a general facility shortage on campuses. In some cases it is also a strategic decision to better coordinate services. At the present time we have no data to suggest that either approach is significantly better than the other.

Table 3
Transfer Center Type



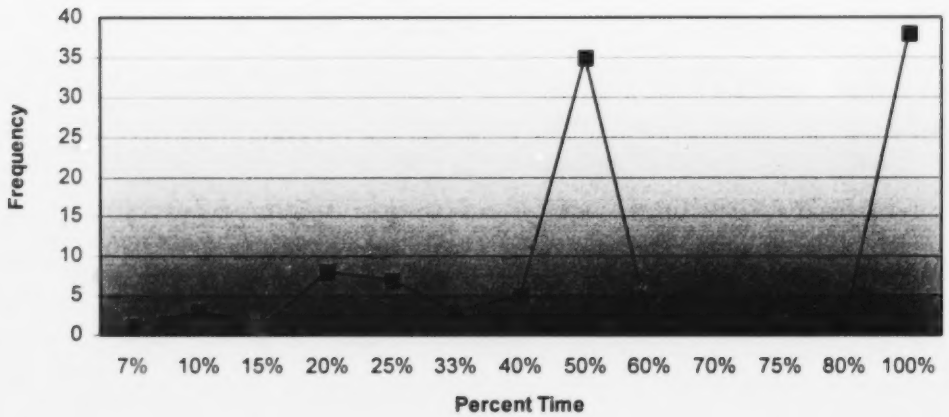
All transfer centers are open and available to students during the academic year (ten months). Three-fourths are open and available to students year round (Table 4). Seventy-eight percent of the colleges provide evening hours in the transfer center and although it is rare for a transfer center to be open on weekends, five (5) community colleges did report having weekend hours of operation.

Table 4
Transfer Center Schedule

Open 12 Months/Year	75%	75 cumulative %
Open 11 Months/Year	9%	84 cumulative %
Open 10 Months/Year	16%	100 cumulative %
Evening Hours Offered	78%	

The overwhelming numbers of transfer center directors are faculty (89%) and there is a fairly even distribution of those contracted for ten months (37%), 11 months (30%) and 12 months (33%). The following graph (Table 5) depicts the percent of time allocated for the transfer center director position. Almost three-fourths (74%) of the transfer centers have half- to full-time directors.

Table 5
Percent Time of Transfer Center Director

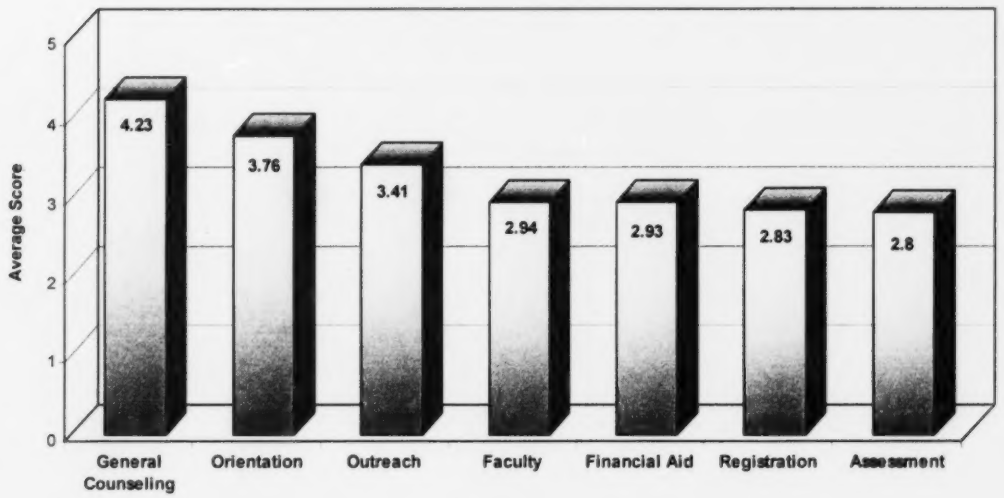


In addition to the transfer center director, all but two colleges report having other personnel assigned to the transfer center operation. Although the type of support and level does vary among the colleges the additional personnel include counselors, assistants, specialists, advisors, and clerical staff. The appropriate level of staffing is a highly individualized factor in the operation of the transfer center. It is largely contingent upon variables that include the number of students to be served, organizational structure, staffing patterns, service delivery approach and available resources. Staffing levels will be further analyzed on an individual basis for those colleges identified as needing assistance in order to determine if it is a major factor in relation to transfer outcomes.

It should also be noted that as previously mentioned in this report, personnel was identified most often as the resource needed to increase transfer capacity. This finding is further affirmed by a brief study of "Barriers in the Transfer Process" conducted by staff in September 2001. That study identified the lack of personal advising and quality information as the significant barriers to transfer. Anecdotal data strongly suggest that one-on-one counseling is the single, most powerful tool for successful transfer.

To gain a perspective on the service provided to students by other services or groups on campus, transfer center directors were asked to rate the quality of transfer information and referrals provided by others on campus who typically communicate with transfer students. Rating was done on a five-level scale ranging from "None" to "Excellent." The results are provided in Table 6.

Table 6
Quality of Information Regarding Transfer Provided by Related Services or Groups
(5=Excellent, 4=Good, 3=Adequate, 2=Limited, 1=None)



An overwhelming majority of transfer center directors report their students receive excellent or good information from the general counseling staff. This highlights the critical role that all counselors play in the academic planning and transfer preparation process. The responses by individual colleges will allow Chancellor's Office staff to determine the extent to which these relationships may be affecting the transfer function at colleges identified as in need of assistance. It appears that a significant number of colleges could benefit from technical assistance in the form of recommended strategies for improving coordination of information and referrals with financial aid, matriculation (assessment), and faculty. To the extent that resources allow, staff will coordinate with the appropriate units in the Chancellor's Office and other groups such as the Academic Senate and other statewide professional associations to formulate and disseminate such strategies as part of the annual transfer and articulation work plan for 2002-2003.

The *2002 Transfer Center Annual Report* required a statement of expenditures supporting transfer center operations. A summary of the information provided by the colleges appears in Tables 7a, 7b, and 7c. Please note that the expenditures reported here reflect only expenditures for *transfer center operation* and therefore, do not necessarily reflect total expenditures for all *transfer-related efforts* in the colleges.

Statewide Transfer Expenditures
2000-2001

Table 7a

Total Expended	Range of Expenditures	Number of Colleges Reporting
$16,937,796	$5,690 - $1,904,448	107

Table 7b

Expenditures by Category		
Category of Expenditures	**Total Expenditures**	**Number of Colleges Reporting**
1000 Academic Salaries	$7,656,452	98
2000 Classified Employees	$4,891,834	104
3000 Employee Benefits	$2,402,792	103
4000 Supplies and Materials	$654,528	104
5000 Other Operating Expenses and Services and Consultants	$797,725	96
6000 Capital Outlay	$534,465	62

Table 7c

Expenditures by Source		
Source of Funds	**Total Expenditures**	**Range of Expenditures**
General Fund	$6,653,705	$32 - $192,712
Combined Funding Sources*	$5,328,053	$302 - $1,123,438
Partnership for Excellence (PFE)	$2,686,620	$275 - $94,080
Unidentified Source	$1,016,086	$161 - $271,322
Other Sources**	$488,936	$25 - $85,120
Grants	$406,715	$135 - $65,084
Matriculation	$325,719	$70 - $72,388
CAN	$31,962	$200 - $5,000

* Colleges reported a single total for multiple sources without breaking out amounts by source.
** Sources identified include, for example, Extended Opportunity Programs and Services and the Orange County Transfer Consortium.

Funding was frequently cited as a fundamental barrier to transfer success. As illustrated by the range and variety of fiscal resources, funding is, much like staffing, a highly individualized aspect of transfer center operation. In the absence of categorical funding, each district brings together resources to meet these needs. Funding patterns will be examined on a case-by-case basis for those colleges determined to have low rates of transfer.

The overall stability of fiscal resources and the resulting effect on consistency of service delivery is a larger issue. Many transfer center directors express frustration over the year-to-year uncertainty resulting from shifting priorities within their college and the internal competition for funds. As evidenced by the numerous sources (Table 7c) and range (Table 7a), a number of colleges creatively cobble together a budget for transfer that often changes annually both in terms of source and amount. This instability is cited as a contributor to inconsistency in the delivery of services to students. Although the extent of this instability varies within the system, there is some basis for concern given the stated high priority status of transfer. Strategies to stabilize the funding of transfer may lead to greater readiness and capacity to serve student needs.

Academic Offerings and Scheduling

A number of questions in the annual report were asked regarding academic offerings and scheduling as related to transfer. Areas of inquiry included course scheduling and sufficiency of offerings in transferable English and math as well as coursework in lower division major preparation.

Transferable English and math courses are the foundation of a student's preparation and activity in these areas are key indicators of a student desire to transfer. More than 80% of the transfer center directors reported sufficient course offerings in both English and math but with a warning that demand for these courses will increase (Tables 8 and 9). However, these data must be seen as *very preliminary*.

The Academic Senate has recommended future inquiries in order to more accurately determine if the responses were in reference to the *range of courses* offered or the number of *sections*. We agree with the Academic Senate that the questions in the survey (simple statements of opinion) and the staff who responded (transfer center directors, not department chairs or instructional staff) caution us against drawing conclusions at this time. The remaining responses are presented with this caution in mind.

Table 8
Sufficiency of English and Math Current Offerings as Reported by Transfer Center Directors

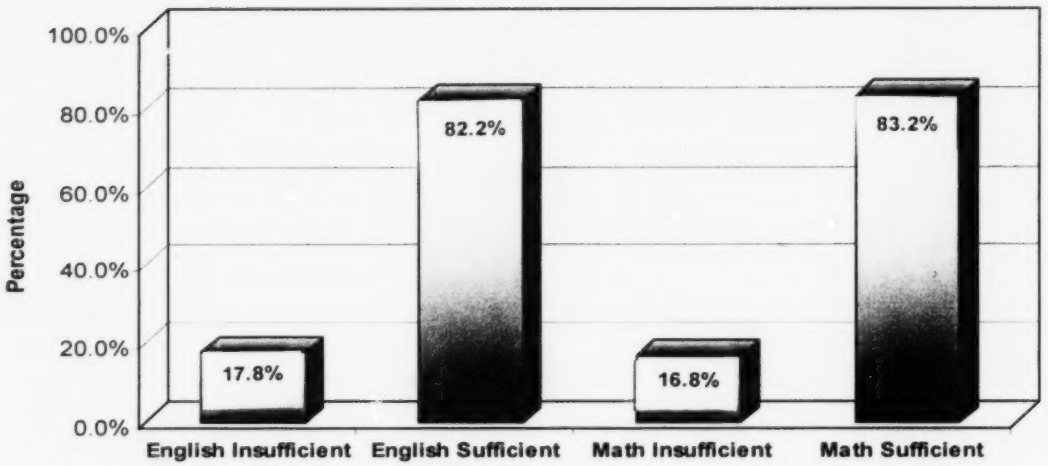
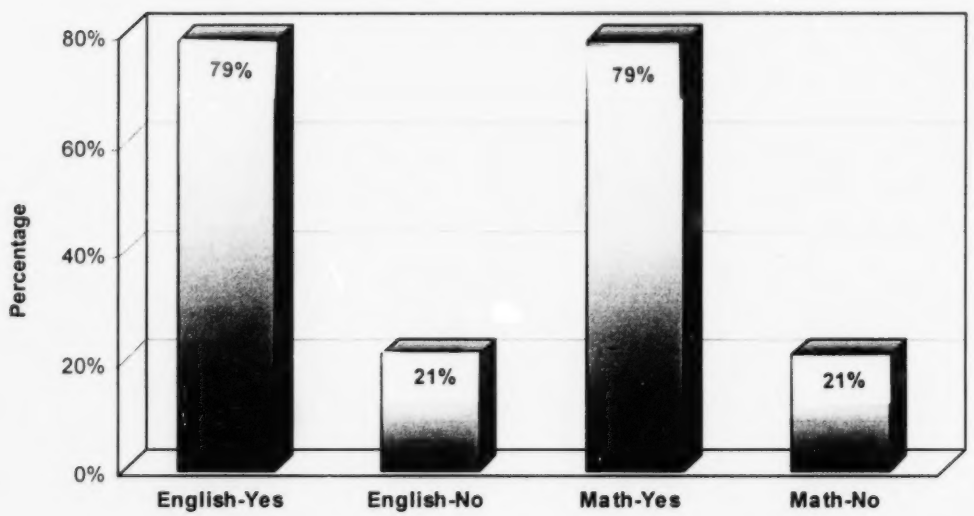


Table 9
Anticipated Future Demand for Transferable English and Math



Results similar to those for English and math were reported for offerings in lower division major preparation. Although the percentages are slightly lower than for English and math, the majority of transfer center directors do subjectively report sufficient course offerings for major preparation at the present time (Table 10) and warn of demand for more such courses in the future (Table 11). The sufficiency of coursework in various majors is a significant policy issue. While some students do not choose a major until their junior year, many students desire to begin preparation in a specific discipline while still enrolled in community college.

Table 10
Current Offerings
Major Preparation

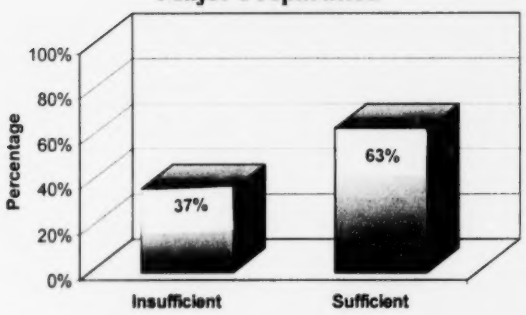
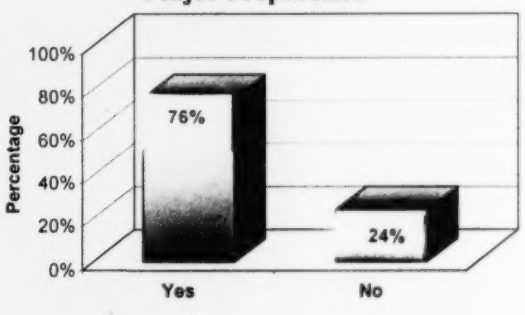


Table 11
Projected Growth in Demand
Major Preparation



When transfer center directors were asked in which additional majors they would like to offer lower division preparation, an extremely wide range of responses was received. The most frequently cited majors are listed in Table 12. (A complete list of responses ranked by frequency may be found in Appendix 2.)

Table 12
High Demand Additional Four-Year Major Preparation
(Ranked in order)

1. Computer Science
2. Engineering
3. Architecture
4. Biology
5. Liberal Studies (teaching credential preparation)
6. Business
7. Radio/TV/Film

Evening and weekend course offerings are typically more convenient for many students who are employed. Transfer center directors were asked about the current and future availability of high demand transfer course offerings on evenings and weekends (Tables 13 and 14). Although a significant majority report sufficient offerings during these periods at the present time, they also project an increase in demand for additional such offerings in the future.

Table 13
Current Offering of High Demand Transfer Courses
Evenings and Weekends

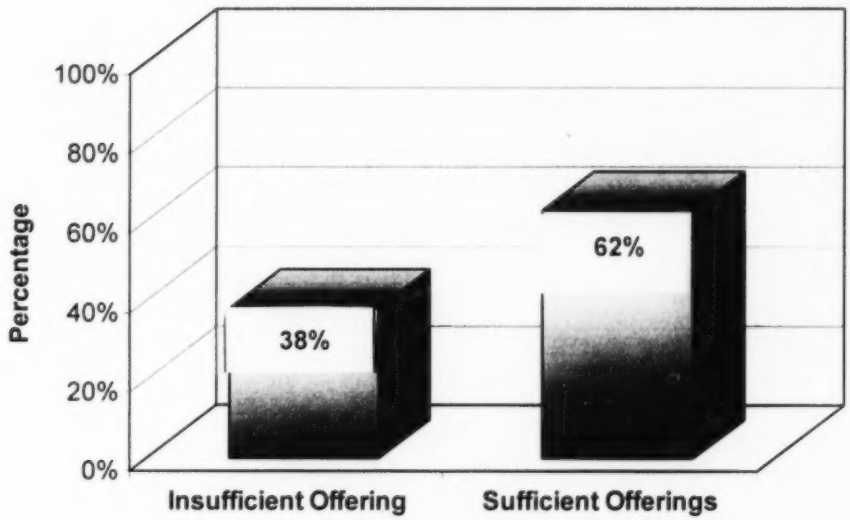
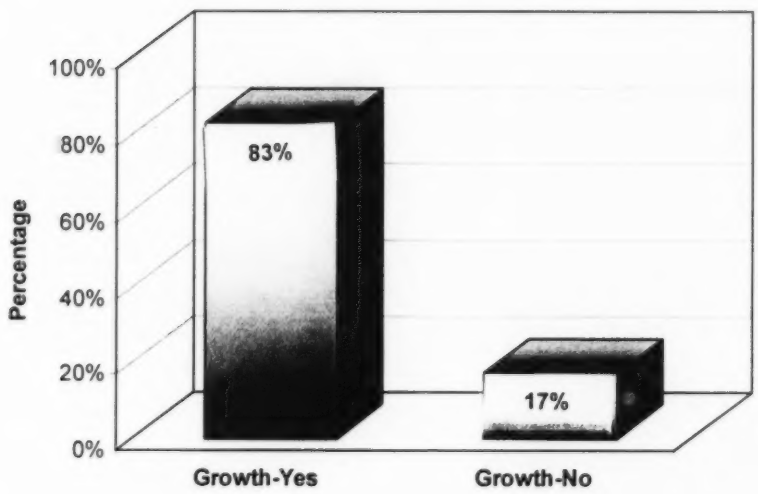


Table 14
Projected Growth in Demand for Transfer Courses
Evenings and Weekends



As noted, it has been agreed that further study must be done before drawing any conclusions or making any statewide recommendations regarding the sufficiency of academic offerings or scheduling. Questions of academic planning and scheduling as related to transfer are complex and must by necessity be addressed only with the direct involvement of faculty. The Academic Senate has agreed to work with Chancellor's Office staff on developing a detailed addendum to the *2002 Transfer Center Annual Report* to be completed by department chairs, faculty and instructional administrators at each college.

Direct involvement of faculty is critical at the level of the individual college experiencing challenges to transfer. For those colleges identified as in need of assistance we will work with representatives of the statewide Academic Senate, faculty at the college, the transfer center director and instructional administrators to assess to what extent academic offerings and/or scheduling may be negatively affecting transfer rates at the college.

We hope to suggest solutions to identified problems in the area of academic offerings, but we recognize the complexity of problems facing each district in this regard. Enrollment management needs often dominate the discussion, particularly in the tight fiscal environment in which the districts must operate. If a particular course is highly desirable for transfer but only needed by a handful of students, there are obvious issues in the allocation of scarce resources.

There are also serious issues regarding the availability of courses in the *sequences* preceding transfer-level English and math (and other critical areas of transfer curriculum). If students cannot be accommodated in pre-baccalaureate-level courses, then access to transfer-level coursework is obviously frustrated. For colleges who receive a greater portion of underprepared students this may be a significant issue.

Additionally, students who fail to seek advice, students who cannot be accommodated by limited counseling staff, and students who frequently change their goals may not know that certain coursework is required. Many students also wait until their last term prior to transfer to attempt challenging math requirements, soon discovering that their preparation is insufficient.

A simple review of the number of sections of transferable math will not identify problems nor point to solutions in this complex area of concern. We will continue to explore these issues and possible solutions in partnership with the Academic Senate and the districts.

Challenges in Transfer

Transfer center directors cited numerous barriers for students in the transfer process. Staff have grouped the responses into nine major categories: student related, academic, transfer center operations, four-year institutions, financial aid, articulation, counseling, data/information, and administration. The barriers cited by transfer center directors in each category are summarized in Table 15 based on frequency of response.

Table 15
Barriers for Students in the Transfer Process
(Cited by Transfer Center Directors; Ranked by frequency of response)

Major Category	Barrier
Student-Related	Level of academic skills and/or preparation
	Transportation, housing, child care, family support
	Lack of understanding of the transfer process
	Changing goals or majors, indecision
	Missed deadlines/appointments, failure to seek assistance
Academic	Insufficient course offerings
	Course scheduling
	Course difficulty
	Lack of faculty involvement and/or need for training
Transfer Center Operations	Lack of adequate staffing
	Information (availability and accuracy related to requirements, dissemination)
	Inadequate budget
	Inadequate facilities/equipment
Four-Year Institutions	Geographic distance
	Admission process or policies
	Insufficient representative visits
	Admission limits (capacity) or schedule (no winter/spring)
Financial Aid	Perception of need
	Complicated process/lack of information
Articulation	Lack of general articulation (volume)
	Lack of major preparation articulation
Counseling	Training for counselors
	Access (not enough available appointments)
	Inadequate staffing
Data/Information	Lack of student tracking
	Transcript information (need for electronic transcripts)
Administration	Transfer not an institutional priority

Transfer center directors were also asked the specific nature of challenges in working with the University of California (UC) and the California State University (CSU). Table 16 summarizes the most frequently cited challenges and comments relative to UC and CSU.

Table 16
Challenges to Transfer – UC/CSU

Categories	Comments
Lack of Articulation	Lack of major preparation, information not in ASSIST, and lack of course-to-course articulation
Lack of Outreach	Not enough campus visits
Admission Policies or Procedures	Unclear or changing requirements, additional testing
Limited Capacity	Increased competition for admission as a result of capacity limits
Impacted Majors	Increased competition, academic preparation and relocation (to find alternate admissions)
Geographic Proximity	Southern community colleges report challenges with northern, northern community colleges report challenges with southern. Also relocation, admission standards, and lack of statewide articulation

The information gathered on challenges presents no new or startling information. These barriers continue to be the topic of discussion in many of the inter- and intrasegmental forums on transfer. They are also the focus of many efforts currently underway throughout the state to improve the transfer process. Intersegmental programs and services to address various aspects of these challenges include ASSIST, California Articulation Number (CAN) system, Intersegmental Major Preparation Articulation Curriculum (IMPAC), Reinventing Transfer, dual admissions, enhanced transfer guarantees and the Memorandum of Understanding (MOU) implementation committees (formed between the community colleges and UC and the independent colleges), as well as many other intrasegmental efforts, regional and pilot programs. Groups such as the California Education Round Table, the Intersegmental Coordinating Committee, the Intersegmental Council of Academic Senates (ICAS), the Academic Senate of the California Community Colleges, the California Postsecondary Education Commission (CPEC), the California Intersegmental Articulation Council (CIAC), the Transfer Centers Directors Association (TCDA), and the Chancellor's Office Regional Representatives continue to place high priority on the challenges cited.

The systemwide data on the transfer function serves to validate much of what we already know and will provide support for establishing priorities in our statewide efforts. However, the real value of the current data is the information specific to each college. Specific data will allow a more accurate diagnosis of individual factors at individual institutions which may have a localized affect on transfer outcomes.

Systemwide Summary Data on Articulation

Articulation is at the heart of a successful transfer function. A college with insufficient articulation simply cannot well serve the needs of students desiring to transfer.

Course articulation, as defined in *The Handbook of California Articulation Policies and Procedures, 1995*, is "the process of developing a formal, written and published agreement that identifies courses (or sequences of courses) on a 'sending' campus that are comparable to, or acceptable in lieu of, specific course requirements at a 'receiving' campus. Successful completion of an articulated course assures the student and the faculty that the student has taken the appropriate course, received the necessary instruction and preparation, and that similar outcomes can be assured, enabling progression to the next level of instruction at the receiving institution." As such, articulation is essential to the academic planning process and the preparation of students desiring to transfer from a community college to a four-year college or university. Lack of articulation between institutions, gaps in articulation, inaccurate or out-of-date information and lack of quick access to articulation information can all seriously undermine efforts to transfer students from a community college and can contribute significantly to the inconvenience and confusion of students in the process.

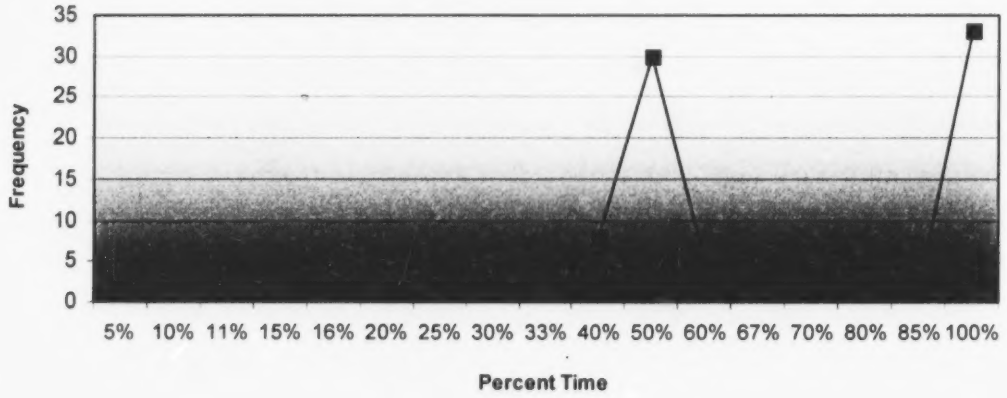
Readiness and capacity issues related to articulation have a direct bearing upon the readiness and capacity for transfer and for that reason are included in this report. The information presented here summarizes responses from an "Articulation Addendum" that was distributed with the *2002 Transfer Center Annual Report* and completed by articulation officers at all 108 community colleges.

There are four sections: Personnel, Funding and Strategies for Improvement, ASSIST, and Challenges in Articulation.

Personnel

Of 107 colleges responding on this item, the overwhelming majority report their articulation officers are faculty (89%). There is a fairly even distribution of those contracted for ten months (39%), 11 months (29%), and 12 months (32%). The following graph (Table 17) depicts the percent of time allocated for the articulation officer position. Almost three-fourths (73%) of the colleges have half- to full-time articulation officers.

Table 17
Percent Time of Articulation Officer



As in the case of transfer center directors, there is quite a wide range among the colleges in the amount of time allocated for this position. Unlike transfer services, however, articulation workload is less affected by the total number of students at the college. Whether articulating a major for 10 students or for 350 students, much of the effort is the same. The volume of work for articulation officers can be affected by other variables including proximity to four-year institutions, the number of transferable courses, the range of majors offered, and the curriculum approval process. For those less than full time, conflicting priorities with other assigned responsibilities, specific articulation-related deadlines and periodic high-demand workload present additional challenges. Based on responses from 100 of the 108 colleges, the majority (72%) report having additional staff assigned to support articulation, but the range varies and 28 colleges report having no additional support (Table 18). In response to a question about challenges, articulation officers cited insufficient staffing as the greatest barrier to increased articulation. It was also identified as the resource most in need for improving or increasing articulation.

Table 18
Articulation Support Staff

FTE (total)	Percent
None	28%
.02 - .45	24%
.50 - .95	21%
1.0 and above	27%

Funding and Strategies for Improvement

There are no requirements or guidelines that establish standards for funding articulation. Funding commitment varies from college to college. Articulation officers cite insufficient and/or inconsistent funding as the second greatest challenge to increasing articulation (behind personnel, which obviously is also a funding issue). Table 19 shows the total amount and range of funds expended on articulation for 2000-2001.

Table 19
Statewide Articulation Expenditures

Total Expended	Range of Expended Funds	Number Reporting
$6,936,333	$4,344 to $161,443	106/108

In the *Articulation Addendum*, articulation officers were asked to identify specific resources and/or strategies that would improve or increase articulation. Responses were grouped and ranked according to frequency of response. Increased staffing was by far the most frequently cited resource that would improve or increase articulation. This category included increasing the articulation officer position to full time as well as the addition of clerical support. Improved hardware/software and increased space were cited. In addition to an overall increase in funding, articulation officers also expressed the desire for mandated levels and/or categorical funding status to establish greater consistency.

Strategies to improve coordination with four-year institutions were frequently cited with emphasis on increasing UC/CSU participation and the need for major preparation articulation. Interestingly, community college articulation officers also expressed the need for both UC and CSU to provide additional resources to support articulation in their systems. Other strategies identified included improvements to the articulation process at the community college and specific suggestions for both CAN and ASSIST.

ASSIST

ASSIST is so critical for successful transfer that it must be highlighted in its own section.

The Articulation System Stimulating Interinstitutional Student Transfer (ASSIST) is a computerized information system that provides students with detailed course transfer and articulation information to help them plan their academic careers, facilitate a seamless transfer process, and reduce the number of redundant courses they may take as they move from community colleges to universities. ASSIST operates as California's official statewide source for course articulation and transfer information and is freely available to all students, faculty and staff via the Internet at ***www.assist.org***. ASSIST is a complex computer system that serves all 108 California Community Colleges, 22 California State Universities, and 8 University of California campuses.

Providing students with up-to-date and accurate information about course transferability and major preparation is a cornerstone of transfer planning. ASSIST is the only existing vehicle for collecting, maintaining and disseminating this integral information among the public segments in higher education. When asked about the usefulness of ASSIST, ninety-two percent (92%) of the colleges responded "very" to "extremely" useful (Table 20). No other transfer project or initiative enjoys such a level of support. Colleges were also asked about the various groups that use the ASSIST database (Table 21).

Table 20
Usefulness of ASSIST

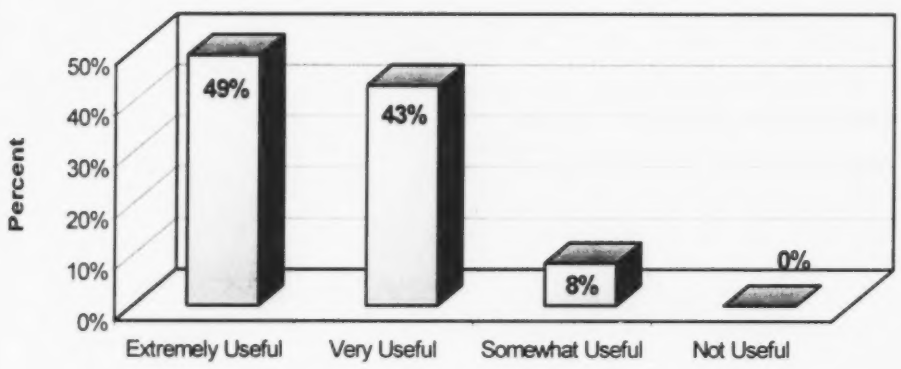
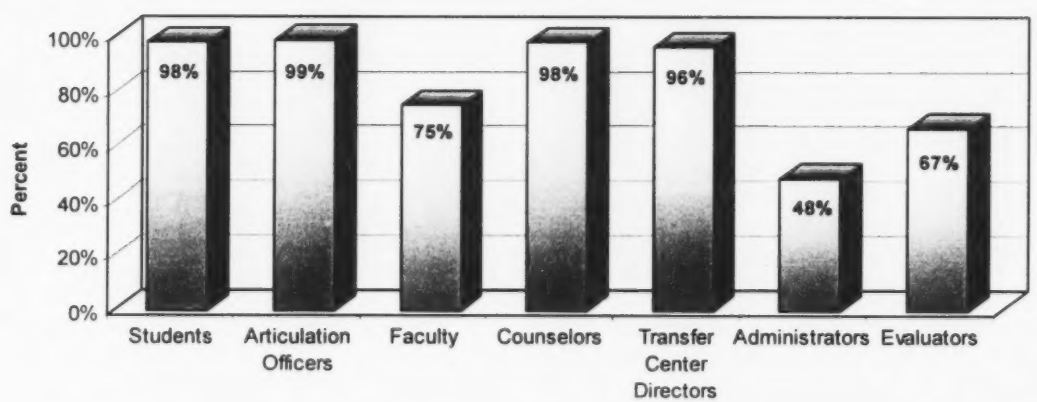


Table 21
Reported Use of ASSIST Database



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The ASSIST data base is the linchpin of transfer information for students. It is probably the most valuable transfer tool now available for students. ASSIST is currently *threatened.* Through the misfortune of state budget woes, a vitally needed augmentation for ASSIST was vetoed last summer. The amount is small by higher education standards ($1.1 million) but huge for the future stability of ASSIST. It is imperative that we not only maintain the viability of the ASSIST system, but that we *further* enhance and expand the capabilities of this critical transfer and articulation resource. If ASSIST is damaged and unable to meet the information needs of community college students, readiness and capacity will absolutely suffer.

Challenges in Articulation

Articulation officers cited a number of challenges in the articulation process. Staff have grouped the responses into eight major categories: staffing, funding, facilities, four-year institutions, independent/private institutions, the articulation process, CAN, and ASSIST. The specific barriers cited by articulation officers in each category are summarized in Table 22 based on frequency of response.

Table 22
Articulation Challenges

Major Category	Barrier
Staffing	Insufficient articulation officer time Insufficient clerical/support time
Funding	Insufficient/inconsistent funding
Facilities	Insufficient/inefficient hardware/software
Four-Year Institutions	UC/CSU unwillingness (those at a geographic distance often cited as unwilling) UC/CSU process (slow, inconsistent, inadequate) UC/CSU lack of major preparation information
Independents/Privates	Independents/privates not in ASSIST Unwillingness to articulate
Articulation Process at Community Colleges	Lack of up-to-date course outlines Approval process (slow, inefficient) Faculty uninformed, uninvolved, or disinterested
CAN	Inefficient, difficult process Confusing to faculty, students and staff Delays in approval at CAN office Lack of UC participation
ASSIST	Slow, operational difficulties Lacking in certain features or formats

Many of the barriers relate to fiscal issues. Staff will review this aspect of resource allocation at those colleges indicated as being in need of technical assistance. On a statewide basis, staffing for articulation may warrant further examination. Staff will explore the sufficiency of staffing with the California Intersegmental Articulation Council (CIAC) and the Academic Senate.

The quality of the articulation process at each college can only be assessed on an individual basis. The November 1, 2001 report to the Legislature on the status of the ASSIST system provides some of the needed individual data. Additional, local assessments may be conducted as part of the technical assistance provided to colleges identified as needing technical assistance. We encourage all colleges to periodically evaluate their articulation and curriculum approval processes in order to determine current efficiency and areas for improvement.

While the Legislature has requested a report regarding the community college capacity in transfer and articulation, it is important to note that aside from the difficult fiscal issues currently faced by higher education, we believe there is significant progress on statewide, intersegmental collaborative efforts that will continue to improve the quality of and increase the quantity of articulation. Recent advances in the CAN system, recent achievements of the IMPAC project and other intersegmental efforts bode well for future success in articulation.

Transfer Rate Calculations

The CCC system historically has not had an official transfer rate; as a result, outside entities requesting system transfer rates have had to interpolate these themselves or have relied upon crude or oversimplified measures for estimates. Of particular concern is the use of non-related counts to generate a ratio of current year transfers to current year enrollment, often resulting in "rates" that are in an unfavorable 3-5% range for the system. The use of such a ratio implies that all transfers come from a single-year cohort of students whose expectation is to complete all of their transfer curriculum in one year. The [current transfers:current enrollment] ratio also implies that *all* students enrolled in the CCCs are dedicated to achieving transfer as a goal. As we know, this is only one of the missions of our colleges and many students do not desire to transfer. *The annual count of transfers divided by the annual enrollment at a college is not a valid transfer rate.*

To overcome these shortcomings, the Chancellor's Office has recently developed and approved a new transfer rate methodology. The new calculation includes only students who had intent to transfer in the rate denominator.

The new transfer rate methodology defines a cohort of students with "intent to transfer" as students who began their collegiate careers as first-time students in a fall term, who, within a period of six years:

- *attempted transfer-level math or English (regardless of the outcome) and*
- *completed at least of twelve units in the CCC system.*

While there are some students who are able to transfer without attempting transfer math or English or who do attempt either of these and do not complete at least 12 units, this method of defining "intent to transfer" captured over 80% of the students who actually did transfer. Additionally:

- The methodology yielded a statewide estimate of [transfer students:all students] of 33-34% indicating that essentially one-third of the students in our system have the intent to transfer under this definition.

- The methodology provided a statewide rate of transfer (among those with the intent to transfer) in the 32-35% range.

- The 12-units completed threshold was sufficient to determine a defendable measure of "value-added" and eliminated most students who attended for brief remediation.

A summary of the new transfer rate methodology as compared to rates using all students is shown in Table 23.

Table 23

Summary and Comparison of Statewide Transfer Rates within the Fall 1994
Cohort: All Students vs. Students with "Transfer Intent"

Methodology	Cohort Size	Percent Who Show "Intent to Transfer"	Number of Actual Transfers in Six Years	Percent of Transfers Captured by Methodology	Transfer Rate
All First-Time Students, Fall, 1994.	269,353		39,227		14.6%
First-Time Students, Fall, 1994 who: • Attempted transfer-level math OR English; and • Completed at least 12 units (any) at any CCC	93,310	34.6%	31,447	80.2%	33.7%

Source: Chancellor's Office MIS Unit

We have performed these calculations for the three most current cohorts and find systemwide transfer rate for the California Community Colleges to be:

- 1993-1999 Cohort: 32.0%
- 1994-2000 Cohort: 33.7%
- 1995-2001 Cohort: 34.2%

Using the new transfer rate methodology, Tables 24 and 25 show the transfer rates of the system by gender and ethnicity for the Fall 1994 cohort of students.

Table 24
Transfer Rates by Gender
Fall 1994 Cohort of Students with "Transfer Intent"

Gender	Transfer Rate
Female	33.5%
Male	36.2%

Source: Chancellor's Office MIS Unit

Table 25
Transfer Rates by Ethnicity
Fall 1994 Cohort of Students with "Transfer Intent"

Ethnicity	Transfer Rate
Asian/Filipino/Pacific Islander	43.1%
Hispanic	25.5%
Unknown	33.0%
Black	23.5%
Native American	26.3%
Other Non-white	38.5%
White	37.2%

Source: Chancellor's Office MIS Unit

Data Sources

There are two *sources* of transfer data currently available to the Chancellor's Office:

- *Electronic data matching with recipient institutions* ("data matching"). Transfer data are gathered when the Chancellor's Office Management Information Systems Unit generates files containing student identifiers and sends them to transfer-recipient institutions or systems. These systems match our student identifiers with their master student databases, and return to us lists of students who they find as having enrolled in their systems. The matches yield transfer data regardless of how other systems have coded the transfer student upon entry (for instance, another entity may not determine that a student who attended a CCC is actually a CCC transfer). Currently, the Chancellor's Office has matching agreements with four entities:

  - University of California, Office of the President (UC)
  - California State University, Chancellor's Office (CSU)
  - U. S. Department of Defense (to determine which students are actively enrolled in the military)
  - National Student Clearinghouse (NSC, also known as the National Student Loan Clearinghouse); this match yields transfer data for in-state private and out-of-state institutions

- *Annual reports of transfers generated by receiving institutions* ("CPEC Reports"). These data are reported annually by receiving institutions to the California Postsecondary Education Commission (CPEC) who acts as a clearinghouse for this information. UC

and CSU annually report to CPEC the number of students whom they determine are transfers from our system to theirs in the prior year. A limited number of in-state private institutions also provide CCC transfer numbers to CPEC.

Shortcomings of Raw or Unadjusted Rates

When transfer rates become publicly available on a college-by-college basis, great scrutiny of the rates occurs, comparisons of rates are made, and lists or rankings of performance are derived. *Even though the rates have been derived using a uniform methodology with more appropriate definitions, it is still not valid to compare rates between colleges using the new methodology.*

The transfer rate of one college should not be compared to the rate of another college because there are exogenous factors beyond the control of the colleges that affect their transfer rate. These exogenous variables are not accounted for in an unadjusted rate methodology. The Chancellor's Office Research Unit has performed a regression analysis on the transfer data and has concluded there are five primary factors not within control of the colleges that will positively or negatively affect their transfer rate:

- Academic preparedness level of incoming freshman students (measured for graduates of California high schools);
- Proximity of the community college to the nearest California State University campus;
- Proportion of the cohort of first-time students who were age twenty-five or less;
- County per-capita income; and
- County unemployment rate.

Comparing transfer rates without noting the effects of these exogenous variables will yield a misleading indicator of the performance of one college compared to another. Some colleges with seemingly low transfer rates may in fact be performing admirably in light of a predominance of students who enter with remedial needs, language barriers, or a college's great distance to a transfer partner. Therefore, *the Chancellor's Office rejects any claims made that suggest a college's superiority or inferiority of performance based solely on these transfer rates.*

Transfer Number Counts

Overview

This methodology counts the number of transfers that occurred in a particular term or year, regardless of when a student began his or her academic career. This methodology can be seen more as a measure of current system output. These data come from the CPEC reports, which are also the data source and counting methodology used for Partnership for Excellence, Goal 1 (Annual Transfers). Since students spend varying lengths of time at a CCC before transferring (some are able to transfer in two years; other may take six years or more), the count of current transfers contains students from many different first-time student cohorts of the past. Because there is no one defined starting cohort that can be identified for the entire pool of current year transfers, *the creation of transfer rates from annual counts of transfers is not feasible.*

National Student Clearinghouse Data

The Chancellor's Office is in its third year of a data matching agreement with the National Student Clearinghouse (NSC) for the acquisition of transfer data from the NSC's national student database. The NSC offers free memberships to colleges so they can validate and verify student financial aid information and student location amongst their member colleges. As an ancillary service, the NSC allows colleges and systems, for a fee, to perform student tracking by submitting files of student identifiers for match. In return, a file is sent back listing transfers to both in-state and nationwide public and private two-year and four-year colleges. In order for a college to be a member, they must submit current rosters of *all enrolled students* six times per year to the NSC (this is how their clearinghouse is populated; the NSC database is not limited just to students with loans). Currently, this NSC match is the best source of transfer data the CCCCO has for in-state private and out-of-state institutions.

The data matching service is limited only to those colleges who are members. Currently, 81 of 108 CCCs are members (up from approximately 30 three years ago). We continue to increase this number as colleges improve their information technology systems. As per our agreement with the NSC, we cannot submit any student records for transfer tracking on behalf of the 27 non-member colleges in our system; therefore, no data on in-state privates or out-of-state transfers can be acquired for these colleges. Without all CCCs becoming and remaining active participants in the NSC, a complete picture on transfer to all segments cannot be achieved; however, matching for the 81 member colleges has provided valuable data on transfer activity to segments other than CSU and UC. Previous "low-transfer" studies omitted private and out-of-state institutions.

In January 2002, the Chancellor's Office MIS Unit performed a match on all valid student social security numbers from Fall 1993 to present for the 81 member colleges (amounting to approximately seven million student records). Returned were 261,850 records that showed

transfer to either in-state private or out-of-state four-year institutions during the period Fall 1993 to Fall 2002.

How the Data are Used

The NSC match data, combined with annual data matches with CSU and UC, provide a wealth of information about transfer between all of the segments. Below are some selected findings related to transfer to in-state private and out-of-state sectors, estimates of annual volume to these sectors, breakdowns of transfers to all sectors and transfer by ethnicity by sector.

Identified in Table 26 are the highest volume in-state private and out-of-state four-year institutions for the 81 NSC-member colleges between Fall 1993 and January 2002.

Table 26
Highest-Volume In-State Private and
Out-Of-State Transfer Recipients of CCC Students
Fall 1993 to Present

In-State Private College/University	Transfers: Fall, 1993-Present	Out-Of-State College/University	Transfers: Fall, 1993-Present
University of Phoenix	35,219	Brigham Young University	3,959
University of Southern California	17,456	University of Nevada	2,553
National University	16,922	University of Colorado at Boulder	1,695
Devry Institute of Technology	7,842	University of Oregon	1,645
University of San Francisco	6,290	Portland State University	1,575
Azusa Pacific University	4,485	Utah Valley State College	1,516
University of the Pacific	3,840	University of Nevada-Las Vegas	1,360
St. Mary's College of California	3,798	Arizona State University	1,350
Pepperdine University	3,707	University of Utah	1,329
University of Redlands	3,680	New York University	1,185

Source: Chancellor's Office MIS Unit; data match with National Student Clearinghouse

Estimating Annual Transfer Counts Using the NSC Match. One of the most promising aspects of the NSC match data is its use in cross-sectional analysis to determine the annual output of transfers to the in-state private and out-of-state sectors. After examining the results (shown in Table 26), some anomalies of the NSC match were noted that make exact annual counts difficult to pinpoint.

A student cannot be matched to a NSC-member institution until that institution becomes a NSC member. When a college becomes a member, they begin populating the NSC database with student records from that time forward. The data match yielded large numbers of transfer matches for new NSC members as of their first data submission; this was the first time the student was seen at that institution by NSC, whether or not their actual transfer occurred prior to that date. For example, if a student started at American River College in Fall 1995, then transferred to Golden Gate University Fall 1997, their actual date of transfer should be Fall 1997. However, Golden Gate University did not become a NSC member until Spring 1999; as a result, the student shows up as having transferred in Spring 1999, which is incorrect.

The data actually show gains in transfers in relation to new memberships in the NSC in the 1990's; the NSC registered rapid membership gains between 1994 and 1999, and with a large number of "reported" transfers occurring as new NSC member colleges come online, it is logical that transfer figures will "bulge" during periods of new membership, then decline to a stable figure when new membership slows down. The NSC now boasts over 80 percent of nationwide enrollments at four-year institutions. While the numbers shown in Table 27 below are useful for estimating ballpark figures of transfers to these segments, they cannot be used as absolute counts. It is theorized that using the NSC match data to produce annual transfer counts will be much more valid in a few years.

Including the NSC matches in a cohort methodology, however, is perfectly viable. Using the same example above, the student who starts at American River in Fall 1995, needs only to be shown as having enrolled elsewhere at any point in their academic career to be counted as a transfer, regardless of whether this occurs in Fall 1997 (when they actually transferred) or Spring 1999 (when NSC reports the enrollment elsewhere). The important thing here is that they are counted at some point to accurately reflect the transfer success of the particular cohort.

Table 27
Annual Counts of Transfers from the CCCs to
In-State Private and Out-of-State Four-Year Institutions (Based on NSC Match)
1994 to 2001

Year	In-State Private	Out-of-State	Total
1994	3,682	2,371	6,053
1995	6,834	7,738	14,572
1996	16,148	13,274	29,422
1997	23,436	13,631	37,067
1998	27,206	15,437	42,643
1999	33,537	17,394	50,931
2000	24,082	16,956	41,038
2001	22,662	17,287	39,949

Source: Chancellor's Office MIS Unit; data match with National Student Clearinghouse

Transfers by Segment. The NSC match has allowed us to estimate the percentage of all transfers that occur in the private and out-of-state sectors. For the cohort of students at the 81 NSC-member colleges who began in Fall 1994, Table 28 shows the distribution of four-year transfers, by sector.

Table 28
Distribution of Transfers by Sector for Fall
1994 Cohort of First-time CCC Students

California State University	62.6%
University of California	17.5%
In-State Private	11.7%
Out-of-State	8.2%
Total	100.0%

Source: Chancellor's Office MIS Unit; data match with National Student Clearinghouse

As shown, 19.9% of the transfer activity of this cohort went to in-state private and out-of-state institutions.

Transfers by Ethnicity by Sector. Segmental transfers by ethnicity show varied rates. As shown in Table 29, students in underrepresented ethnicities have transfer patterns that vary by ethnicity. Hispanic students comprise a larger percentage of transfers to the in-state private sector, but make up a much lower percentage of the out-of-state sector. Black students, however, have a higher segmental representation in the out-of-state sector.

Table 29
Distribution by Ethnicity of Transfers to Each Sector
Fall 1994 Cohort

(This table should read: "Of all the students who transferred from the CCCs to UC from the Fall 1994 cohort of first-time students, 33.3% were Asian; 12.6% were Hispanic, etc. The table should be read down the columns.)

Ethnicity	UC	CSU	In-State Private	Out-Of-State
Asian/Filipino/Pacific Islander	33.3%	24.1%	22.2%	13.4%
Hispanic	12.6%	17.7%	18.0%	7.6%
Unknown	3.2%	2.6%	2.6%	2.7%
Black	2.5%	3.7%	8.0%	10.6%
Native American	0.6%	0.9%	0.8%	1.4%
Other Non-White	2.2%	1.8%	2.1%	1.3%
White	45.6%	49.2%	46.4%	63.0%
Total	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Source: Chancellor's Office MIS Unit

Table 30 shows the distribution of transfer sector by ethnicity. CSU still receives the majority of all ethnic transfer activity; however, CSU accepts a very large percentage of Hispanic transfers, while Black students show much greater transfer activity in the in-state private and out-of-state categories.

Table 30
Distribution by Sector of Transfers by Ethnicity
Fall 1994 Cohort

(This table should read: "Of all the Asian students who transferred from the CCCs in the Fall, 1994 cohort of first-time students, 23.2% of them went to a UC; 62.2% went to CSU, etc. The table should be read across the rows.)

Ethnicity	UC	CSU	In-State Private	Out-Of-State	Total
Asian/Filipino/Pacific Islander	23.2%	62.2%	10.2%	4.4%	100.0%
Hispanic	13.5%	70.0%	12.7%	3.8%	100.0%
Unknown	20.0%	61.3%	10.7%	8.0%	100.0%
Black	9.4%	51.8%	20.0%	18.7%	100.0%
Native American	12.3%	64.6%	10.5%	12.6%	100.0%
Other Non-White	20.9%	60.8%	12.8%	5.5%	100.0%
White	15.9%	63.3%	10.7%	10.2%	100.0%

Source: Chancellor's Office MIS Unit

Capacity at Receiving Institutions

The supply of high school graduates to California's postsecondary institutions, the supply of transfer students from the CCC system, the demand and capacity for these students in the CSU and UC receiving institutions, enrollment management policies, and legal requirements by these systems to accept transfer students all exhibit a complex interrelation when examining the public-sector transfer function within California. The following examines the current status of transfer capacities in the CSU and UC systems.

Transfer: Requirements of the Education Code: The *California Education Code (CEC)* controls a portion of this intricate relationship. Section 66201.5 of the CEC suggests that CSU and UC seek to maintain a 60:40 ration of upper division to lower division enrollments; section 66202 specifies admissions priority practices for CSU and UC.

> ***66201.5.*** *It is the intent of the Legislature that both the University of California and the California State University shall seek to maintain an undergraduate student population composed of a ratio of lower division to upper division students of 40 to 60 percent. Consistent with Section 66201, it is the intent of the Legislature that the University of California and the California State University reach and maintain this goal by instituting programs and policies that seek to increase the number of transfer students rather than by denying places to eligible freshmen applicants.*
>
> ***66202.*** *(a) It is the intent of the Legislature that the following categories be followed, insofar as practicable in the following numerical order, for the purpose of enrollment planning and admission priority practice at the undergraduate resident student level for the California State University and the University of California:*
>
> *(1) Continuing undergraduate students in good standing.*
>
> *(2) California Community College transfer students who have successfully concluded a course of study in an approved transfer agreement program.*
>
> *(3) Other California Community College students who have met all of the requirements for transfer.*
>
> *As stated in legislative findings, the transfer function plays a key role in meeting the state's goals of educational equity. Therefore, the Board of Regents of the University of California and the Board of Trustees of the California State University shall declare as policy for this paragraph and paragraph (2) of this subdivision that students who are eligible to transfer and who are from historically underrepresented groups or economically disadvantaged families shall be given preference, to the fullest extent possible under state and federal law, statutes, and regulations, in transfer admissions decisions, and shall design policies in conformity with state and federal statutes and regulations intended to facilitate their success in achieving transfer.*
>
> *(4) Other qualified transfer students.*
>
> *(5) California residents entering at the freshman or sophomore levels.*

(b) It is further the intent of the Legislature that within each of the preceding enrollment categories, the following groups of applicants receive priority consideration in admissions practice in the following order:

(1) Residents of California who are recently released veterans of the armed forces of the United States.

(2) Transfers from California public community colleges.

(3) Applicants who have been previously enrolled at the campus to which they are applying, provided they left this institution in good standing.

(4) Applicants who have a degree or credential objective that is not generally offered at other public institutions of higher learning within California.

(5) Applicants for whom the distance involved in attending another institution would create financial or other hardships.

As stated, CCC transfers who have completed transfer agreement programs or have met transfer requirements (i.e., "upper-division transfers") legally have a very high priority in enrollment management at CSU and UC. Lower-division CCC transfers would normally fall into the lowest priority.

Transfer in the CCC system as a measure of output. In fiscal year 2000-2001, CPEC reported a total of 59,122 students transferred from a CCC to UC or CSU. This figure has been relatively stable in the past decade, with an upturn in the years after the Intersegmental Memorandums of Understanding were signed and the Partnership for Excellence was enacted (Table 31).

Table 31
Annual Count of Transfers: CCC to CSU and UC
1993-94 to 2000-01

Year	CSU	UC	Total
1993-94	44,454	10,508	54,962
1994-95	46,912	10,466	57,378
1995-96	48,688	10,620	59,308
1996-97	48,349	10,244	58,593
1997-98	45,546	9,872	55,418
1998-99	44,989	9,929	54,918
1999-00	47,706	10,547	58,253
2000-01	47,900	11,215	59,115

Source: California Postsecondary Education Commission

While the CCC system has no control over the actual acceptance or denial of an individual student who applies to UC or CSU. If we assume that the CSU and UC admit all possible CCC transfers they are legally required to admit, then yearly transfer figures can be seen as a rudimentary estimate of the output of the CCC system. However, conditions outside the control

of the CCCs and, in some cases, outside the control of UC and/or CSU may preclude student transfer and affect the actual number of transfers on an annual basis. These could include:

- Application to impacted majors/campuses;
- Admittance to a campus that a student chooses not to attend;
- Student microeconomic choice to enroll at another educational provider outside CSU and/or UC;
- Regional admissions policies; and
- Social/cultural pressures.

Using the 60-40 enrollment guideline as a measure of "capacity": CSU and UC attempt to follow a policy whereby 60 percent of their enrollments are upper-division students, and 40 percent are lower-division. Over time, this ratio has shown flux in each of the segments (Tables 32 and 33).

Table 32
Upper-Division to Lower-Division Student Enrollment Ratios
The California State University, 1990-1999

Year	Fresh.	Soph.	Total: Lower Division	Junior	Senior	Total: Upper Division	Total Students	Ratio: Upper Division to Lower Division	
1990	58,201	42,152	100,353	82,489	111,241	193,730	294,083	65.9%	34.1%
1991	51,979	39,763	91,742	82,475	113,598	196,073	287,815	68.1%	31.9%
1992	45,805	35,726	81,531	79,638	115,953	195,591	277,122	70.6%	29.4%
1993	42,575	31,997	74,572	73,821	114,099	187,920	262,492	71.6%	28.4%
1994	45,794	29,053	74,847	73,356	110,757	184,113	258,960	71.1%	28.9%
1995	50,779	30,886	81,665	72,904	109,454	182,358	264,023	69.1%	30.9%
1996	55,505	32,844	88,349	74,616	109,677	184,293	272,642	67.6%	32.4%
1997	59,104	31,759	90,863	76,423	108,768	185,191	276,054	67.1%	32.9%
1998	59,899	32,637	92,536	75,679	110,382	186,061	278,597	66.8%	33.2%
1999	63,445	34,114	97,559	77,350	110,124	187,474	285,033	65.8%	34.2%

Source: California Department of Finance

Table 33
Upper-Division to Lower-Division Student Enrollment Ratios
The University of California, 1990-1999

Year	Fresh.	Soph.	Total: Lower Division	Junior	Senior	Total: Upper Division	Total Students	Ratio: Upper Division to Lower Division	
1990	31,824	26,585	58,409	34,111	32,524	66,635	125,044	53.3%	46.7%
1991	29,887	25,313	55,200	34,940	35,277	70,217	125,417	56.0%	44.0%
1992	29,564	24,718	54,282	34,819	35,688	70,507	124,789	56.5%	43.5%
1993	28,565	23,216	51,781	35,112	35,764	70,876	122,657	57.8%	42.2%
1994	29,531	22,681	52,212	34,477	35,251	69,728	121,940	57.2%	42.8%
1995	30,429	23,361	53,790	34,271	35,887	70,158	123,948	56.6%	43.4%
1996	31,293	24,158	55,451	34,147	36,662	70,809	126,260	56.1%	43.9%
1997	32,156	24,971	57,127	34,626	37,223	71,849	128,976	55.7%	44.3%
1998	33,083	25,239	58,322	35,797	38,358	74,155	132,477	56.0%	44.0%
1999	33,979	26,339	60,318	36,829	39,635	76,464	136,782	55.9%	44.1%

Source: California Department of Finance

As shown above, both segments show drops in enrollments at all levels during the mid-1990s, but both have had increasing enrollments since then. CSU is consistently over its 60:40 ratio (and thus could be viewed as being over-capacity in upper-division enrollments), while UC is consistently under it.

Given the hierarchy of CEC Section 66202, once the first four types of students are granted admission (returning students first, CCC transfers with transfer agreement, CCC transfers who meet basic requirements, then other transfer students), this *overfills* the upper-division enrollments at CSU, whereas it *underfills* the upper-division at UC. While this analysis does not attempt to analyze the physical capacities for enrollments in either system, it does demonstrate that the concept of upper-division capacity to accept transfer students is fluid in these segments; since CCC transfer students essentially displace lower-division admits in CSU and UC, and since ever-decreasing numbers of lower-division admits at CSU and UC would then result in fewer continuing undergraduate students passing into the upper-division levels, the *theoretical capacity* of CSU and UC to accept CCC transfer students is limited only by the production of transfer students from the CCC system.

This theoretical maximum capacity is, of course, affected much more by local and regional enrollment management policies at CSU and UC. As the number of impacted campuses and majors increases in these segments, it becomes more likely that a transfer student will be faced with being admitted to a campus or a major that is not his or her first choice. A recent examination of impacted programs at CSU shows a significant trend toward impaction (Table 34).

Table 34
Count of Impacted Programs
CSU, 1998-2003

Year	Number of Impacted Programs
1998-1999	33
1999-2000	33
2000-2001	30
2001-2002	48
2002-2003	71

Source: CSU Review, Academic Affairs

Examining the Hierarchy: Percentage of transfers who are from the CCCs. Given the hierarchy of admissions, to gauge current capacity and also the true measure of transfer effectiveness from the CCC system, one must examine the number of *upper-division transfers* to CSU and UC. Telling the story of transfer activity using only total number of transfers does not properly reflect the phenomenon that occurs when greater numbers of upper-division transfers displace lower-division enrollments (Tables 35 and 36).

Table 35
Transfers by Upper/Lower-Division Status and Percentage of Total Transfers
CSU, 1990-2001

Year	CSU Total Lower-Division Transfers	Lower-Division Transfers from CCC	CCC % of CSU Total Lower-Division Transfers	CSU Total Upper-Division Transfers	Upper-Division Transfers from CCC	CCC % of CSU Total Upper-Division Transfers	Total Transfers: CCC to CSU	% CCC Transfers who are Upper-Division Transers
1990-91	19,818	14,757	74.5%	40,409	31,921	79.0%	46,678	68.4%
1991-92	16,846	13,091	77.7%	39,342	31,809	80.9%	44,900	70.8%
1992-93	13,990	11,079	79.2%	36,303	29,902	82.4%	40,981	73.0%
1993-94	15,181	11,981	78.9%	39,008	32,473	83.2%	44,454	73.0%
1994-95	15,593	11,846	76.0%	41,746	35,066	84.0%	46,912	74.7%
1995-96	16,525	12,181	73.7%	43,628	36,507	83.7%	48,688	75.0%
1996-97	15,921	11,465	72.0%	43,862	36,884	84.1%	48,349	76.3%
1997-98	11,955	8,277	69.2%	44,127	37,269	84.5%	45,546	81.8%
1998-99	10,791	7,470	69.2%	43,810	37,519	85.6%	44,989	83.4%
1999-00	11,067	7,733	69.9%	46,334	39,973	86.3%	47,706	83.8%
2000-01	7,667	4,740	61.8%	49,147	43,160	87.8%	47,900	90.1%

Source: CSU Chancellor's Office, Division of Analytic Studies

Table 36
Transfers by Upper/Lower-Division Status and Percentage of Total Transfers
UC, 1993-2000

Year	UC Total Lower-Division Transfers	Lower-Division Transfers from CCC	CCC % of UC Total Lower-Division Transfers	UC Total Upper-Division Transfers	Upper-Division Transfers from CCC	CCC % of UC Total Upper-Division Transfers	Total Transfers: CCC to UC	% CCC Transfers who are Upper-Division Transers
1993-94	1,910	1,409	73.8%	10,355	9,099	87.9%	10,508	86.6%
1994-95	2,066	1,286	62.2%	10,413	9,180	88.2%	10,466	87.7%
1995-96	1,684	1,107	65.7%	10,880	9,513	87.4%	10,620	89.6%
1996-97	1,464	915	62.5%	10,666	9,329	87.5%	10,244	91.1%
1997-98	1,417	903	63.7%	10,259	8,969	87.4%	9,872	90.9%
1998-99	1,053	592	56.2%	10,506	9,337	88.9%	9,929	94.0%
1999-00	999	556	55.7%	11,303	9,991	88.4%	10,547	94.7%

Source: UC Office of the President

The tables above show that even though actual numbers of transfers may remain static or grow slowly, an associated shift of these transfers from lower-division to upper-division is occurring in both segments, with a particularly dramatic shift in the CSU transfer pattern.

Essentially, the CCC system as a whole is producing an ever-increasing number of fully-qualified upper-division transfer students each year and these students are being accepted into CSU and UC. However, increases in upper-division transfers are historically at the expense of lower-division transfers.

Students who complete their entire lower-division coursework at the community colleges save the state considerable expense. Therefore, the transfer function of the community colleges has become of greater fiscal benefit to the state over the last few years. Increasing upper-division transfer at the expense of lower-division transfer is sound fiscal policy, but because the numbers have not been historically presented in this manner, our success in this regard has not been readily apparent.

Persistently Low-Transfer Institutions

Why Make this Determination?

For the second year in a row, the Governor and Legislature approved *Budget Act* language that directed the Chancellor's Office to assist colleges with low rates or numbers of transfer. The language states, "Technical assistance shall be provided to any college with persistently low numbers or rates of transfer..." The complete language as it appears in the *2001-2002 Budget Act* is contained in Appendix One.

Obviously, in order to provide targeted assistance as directed, the agency must develop definitions and a methodology to identify such colleges.

Previous Research on Low-Transfer Institutions

Last year's report was based on transfer rates derived from a cohort tracking methodology that used all enrolled students as the denominator of the transfer rate (the "raw" transfer rate) and only counted transfers to CSU and UC. At that time, no official transfer rate existed on which to base the study. Additionally, a second "adjusted rate" was derived that accounted for known exogenous variables affecting transfer. Using this adjustment process, the Chancellor's Office derived an "expected" transfer rate for each college, and compared that to their actual transfer rate. The differential between expected and actual was observed. The final decision criteria for being included in the list for 2000-01 was that a college must have been in the bottom quartile of both the raw transfer rate and the adjusted transfer rate differential. The list yielded 14 colleges and was submitted in March 2001 to the Department of Finance.

Responses from CEOs. As a part of the review process of this first report, the Chancellor's Office invited comments from college and district CEOs and their staff. Responses about the report were received from colleges both on and off the final list. In response to this input, the Chancellor's Office has greatly refined the parameters of this study for 2001-2002. A summary of responses and Chancellor's Office actions is shown in Table 37.

Table 37
Summary of CEO Response to 2000-2001 "Low Transfer College" Study and Subsequent Chancellor's Office Actions

CEO Response Item	Response and Change Made for 2001-2002 Report
Improper Transfer Rate Methodology: Rate included all students in cohort.	• Chancellor's Office, in consultation with constituent groups, formed the Transfer Data Technical Workgroup (TDTW) • TDTW created transfer rate methodologies • Official Transfer Rate methodology adopted by Consultation (Nov. 2001) • New transfer rate incorporated into PLTC Study for 2001-02.
Count of transfers did not include transfers to in-state private and out-of-state colleges.	• Chancellor sent out mail/e-mail urging all colleges to become members of the National Student Clearinghouse • MIS Division performs longitudinal data match with NSC to get all transfers 1993-present. • NSC transfer matches incorporated into study for 2001-02.
Study did not account for differing levels of academic preparedness of students in adjustment model.	• Chancellor's Office enters into data matching agreement with California Department of Education (CDE) for SAT-9 scores of 11th grade students • Research Unit develops index of academic preparedness for each college's incoming first-time California high school-graduate students • Index is incorporated into 2001-02 adjustment model
Data errors in identifying first-time students in cohorts identified (student incorrectly self-reports, or college does not convert data field from "first-time" to "continuing" in subsequent terms).	• Cohorts are matched against statewide database of students to determine if prior enrollments have occurred: if so, student is removed from cohort.

Source: Chancellor's Office Research Unit

New Rate Methodology and Decision Criteria

All of the refinements listed above are incorporated into the 2002 study. The 2001 study was based solely on the outcome of only one cohort (that of the Fall 1993 cohort, tracked for six years). However, the 2002 study must account for colleges with "persistently low rates"; as a result, the 2002 study will be based on the outcome of the three cohorts for which we have six years of longitudinal transfer data ('93, '94, '95). Additionally, the criteria for being defined as

"low" in the 2001 report (bottom quartile, an arbitrary cutoff) will no longer be used. Instead, "low" will be defined using a statistical technique that identifies outliers in "interquartile ranges" (IQR). The use of the IQR to identify low transfer colleges is advantageous for several reasons. First, it is used widely in introductory statistical texts as the primary means by which "outliers" are identified, making it a commonly accepted method of determination. Second, using IQRs is fair, in the sense that it accounts for the degree of spread in the transfer rate residuals across the colleges and it is based upon a predetermined (rather than arbitrary) standard. For a college to be deemed "persistently low," they will have to have a transfer rate residual that is determined to be a statistical outlier three years in a row using the IQR methodology.

Exogenous Variables for Equitable Analysis and Identification

As was the case in the 2001 study, exogenous variables out of the control of a college are factored into a colleges expected transfer rate (Appendix Three). For the 2002 study, these include:

- Academic preparedness level of incoming freshman students (measured for graduates of California high schools);
- Proximity of the community college to the nearest California State University campus;
- Proportion of the cohort of first-time students who were age twenty-five or less;
- County per-capita income; and
- County unemployment rate.

The 2001 study did not include the academic preparedness level factor. In Fall 2001, the Chancellor's Office Technology, Research, and Information Systems Division negotiated a data matching agreement with the California Department of Education (CDE) to gain access to individual student scores on the Stanford Achievement Test, Ninth Edition (SAT-9) of eleventh-grade California high school students (the SAT-9 is not administered to seniors). The SAT-9 is the most widely used achievement test, administered nationwide to millions of students. Eleventh grade students are tested in reading, writing, mathematics, history, social science, and science; these scores show how individual and groups of California students are doing in comparison to other students in the United States. The SAT-9 is currently the basis of CDE's derivation of the Academic Performance Index (API) for all California public schools.

Although the SAT-9 data contains no student social security numbers, it does contain student birthrate, gender, ethnicity, and the high school where it was taken. These identifying data were matched against the CCC database, which contains student birthrate, gender, ethnicity, and high school of origin. Using this technique, a very large sample (almost 70,000 statewide) of incoming first-time, California high-school graduate students were uniquely matched; from this

large sample, the Research Unit was able to construct, using the individual students SAT-9 scores, an index of academic preparedness for each college's incoming class. This index was then used in the adjustment modeling of the "Persistently Low Transfer College" Study to account for the differences in academic-preparedness of students from one college to the next.

The 2002 "Persistently Low Transfer College" Study: Results

The quantitative portion of the 2002 "Persistently Low Transfer College" Study has been completed. As discussed previously, the analysis incorporates major methodological advancements from the previous year. Qualitative analysis of the outcome is forthcoming, and will occur in coming months.

The quantitative results are listed in Appendix 4. Three cohorts were examined in the study, and each cohort yielded three colleges that were low for a single cohort (their IQR distance was greater than 1.5). Only one college (College of Marin) showed up on all three lists.

The Chancellor's Office is not yet ready to label College of Marin as a "persistently low" transfer college because at the time the study was conducted, College of Marin was not a member of the National Student Clearinghouse, the data matching entity that provides matches for in-state private and out-of-state institutions. College of Marin has previously identified itself as an institution whose transfer students do transfer to these segments at high rates. Additionally, no qualitative analysis of College of Marin's transfer function has occurred to determine if their operations follow commonly used best practices. Until further data are gathered, this report names the college as being "persistently low" based only on the quantitative portion of the study.

Data Correlation

In this report we have provided a wealth of summary descriptive data on the local transfer effort (personnel, budget, curricular offerings, and much more) as well as a detailed, summary analysis of transfer rates. The natural question arises, "Are there any statistical relationships between the two sets of data?" For example, do colleges with a full-time transfer center director have a greater than expected transfer rate? And so forth?

We calculated the statistical relationships between the individual college variables in the annual transfer and articulation reports with the raw and adjusted transfer rates of each college. Preliminarily we found indications of statistically significant correlations between some factors that may guide future inquiries.

However, no correlations are presented in this report due to the very preliminary and incomplete nature of these inquiries. The finding of a statistical relationship between a hypothetical causal factor and a hypothetical effect, while intriguing, is not a sufficient condition for a causal inference. It cannot prove effectiveness by itself; other supporting data and analysis are necessary. Additionally, the time-ordering or sequencing of the available data do not lend themselves to causal conclusions. Finally, the context in which transfer functions is multivariate and complex.

We will continue the investigation of some of the more intriguing relationships, but we doubt we will ever be able to provide a defensible causal statement that points to a single, magic bullet for transfer success.

Technical Assistance

The *Budget Act of 2001* states, "From within existing resources, the chancellor shall provide technical assistance to community college districts as necessary to assure that each community college district identifies options to use its local resources most effectively for providing reasonable opportunities to transfer for students served by the district. Technical assistance shall be provided to any college with persistently low numbers or rates of transfer..."

Assistance Traditionally Provided to the Colleges

The Chancellor's Office has historically provided a variety of technical assistance in transfer and articulation within its quite limited existing resources. (Existing resources include two full-time professional staff and one-third of an office technician devoted to transfer and articulation.) These staff will continue to provide technical advice in response to specific questions or requests for information in both transfer and articulation. Typically, requests of this nature are handled via e-mail, telephone, and mail or occasionally by site visit. Staff will continue to actively contribute to the various projects and efforts related to improving transfer and articulation such as CAN, ASSIST, IMPAC, MOU implementation committees, dual admissions, Transfer: Making it Happen, Intersegmental Coordinating Council (ICC) transfer initiatives, Reinventing Transfer, and ad hoc events. Additionally staff will continue collaboration with groups such as the Academic Senate, ICAS, the ICC, the California Student Aid Commission, EdFund, CIAC, and TCDA on issues regarding transfer and articulation. Staff also provide analysis on budget and legislative issues where appropriate. Mostly importantly, the work of the Chancellor's Office staff will continue to be informed by regular meetings with transfer and articulation personnel who suggest areas where statewide support may be necessary.

Refinements to the Transfer and Articulation Technical Assistance Work Plan

In the course of evaluating the information for this report, staff have identified several areas that were consistently reported as problematic. These areas include monitoring student progress, establishing advisory committees, institutional research for internal evaluation, academic offerings or scheduling, the articulation process, funding and staffing. Many of these areas are already the focus of ongoing staff efforts and will continue to be incorporated into the future work plan. In addition, within the scope of existing resources, staff will seek to develop and disseminate general recommendations, information and training in those areas. Preliminary discussions have already taken place with representatives of the Academic Senate and the ad hoc counseling committee on transfer about conducting further studies on academic offerings/scheduling, monitoring student progress and staffing.

Assistance Targeted Specifically for Colleges with Persistently Low Numbers

The *Budget Act* language specifies that technical assistance shall be provided to any college with persistently low numbers or rates of transfer. The one college identified in this report, plus other colleges appearing to have low numbers or rates, will be individually contacted by staff who will gather and evaluate existing and/or additional information in order to assess the extent to which the college has identified options to use its local resources most effectively for providing reasonable opportunities to transfer for students. Closer examination of transfer center operations and other variables such as Title 5 compliance, funding, facilities, staffing, articulation and academic offerings or scheduling will serve to suggest specific areas in which the Chancellor's Office might recommend specific corrective actions.

While we recognize that visits would be valuable, there are no means within existing resources to fund significant staff travel. We have attempted in the past to coordinate visits from more successful colleges to those requiring assistance in the belief that such mentoring relationships can be quite effective. Unfortunately, there has been little success in this area because all colleges report they are much too understaffed to volunteer to work for other colleges (even briefly).

The Academic Senate, as noted, has indicated they will assist in the evaluation of academic offerings and scheduling issues. We hope that this project may yield additional ideas on effective methods of assistance at the local level for colleges experiencing specific academic challenges.

The evaluation of exogenous variables also points to possible technical assistance of value. We cannot, for example, move a specific community college closer to a UC or CSU campus, but perhaps we can influence institutions to provide relocation scholarships or visitation grants. We cannot improve the average income of the counties or service areas but we can provide specific information on better access to student financial aid. We cannot single-handedly improve the academic preparation of entering students but we can work with the faculty and student service personnel to build remedial bridges to transferable coursework. Thus, the variables used to mitigate the perception of "low-transfer" and adjust a college's rate in an equitable manner, may also point to more effective strategies to overcome those exogenous challenges. We will continue our deliberations with colleges on these issues.

Indicators Other than "Low-Transfer"

In reviewing the transfer center annual reports and other data, staff have identified specific concerns at some individual colleges. Regardless of overall transfer numbers, staff will follow up with these colleges on a case-by-case basis to obtain clarification on the item in question and when possible and appropriate, provide technical assistance to address the issue.

There is still much to learn from further analysis of the available data. We have the capability to generate results from the data according to a number of specific variables such as age, gender, level of academic preparation, ethnicity, zip code, student aid status and citizenship status. Regardless of total transfer numbers or rate, exploratory examination at this level indicates that some colleges successfully transfer higher percents of certain sub-groups. This information not only provides deeper insight into the overall transfer performance of a college, but may also suggest "best practices" for other colleges in relation to serving certain populations.

The 2002-2003 Work Plan

The most difficult challenge will be prioritizing the many possible types of technical assistance to make the best use of our severely limited existing resources. As we develop our 2002-2003 work plan for presentation and discussion at the July 2002 meeting of the Board of Governors, we will grapple with these priorities.